



# Monthly Wholesale Trade

## Sales and Inventories

U.S. Department of Commerce  
Economics and Statistics Administration  
BUREAU OF THE CENSUS

**July 1997**  
BW/97-7  
Issued September 1997

**Sales.** July 1997 sales of merchant wholesalers, after adjustment for seasonal variation and trading-day differences but not for price changes, were \$211.9 billion, up 0.5 percent (+/-0.7%) from the revised June level and were 4.0 percent (+/-1.1%) above July 1996. The June preliminary estimate was revised upward by \$0.1 billion or 0.04 percent. July sales of durable goods increased 1.6 percent (+/-0.8%) from June and were 6.9 percent (+/-2.2%) above July 1996. Compared to last month, sales of machinery, equipment, and supplies were up 3.2 percent and metals and minerals, except petroleum, increased 2.3 percent. Among nondurable goods, sales of drugs, drug proprietaries, and druggists' sundries increased 2.9 percent above June, while petroleum and petroleum products declined 2.1 percent from last month.

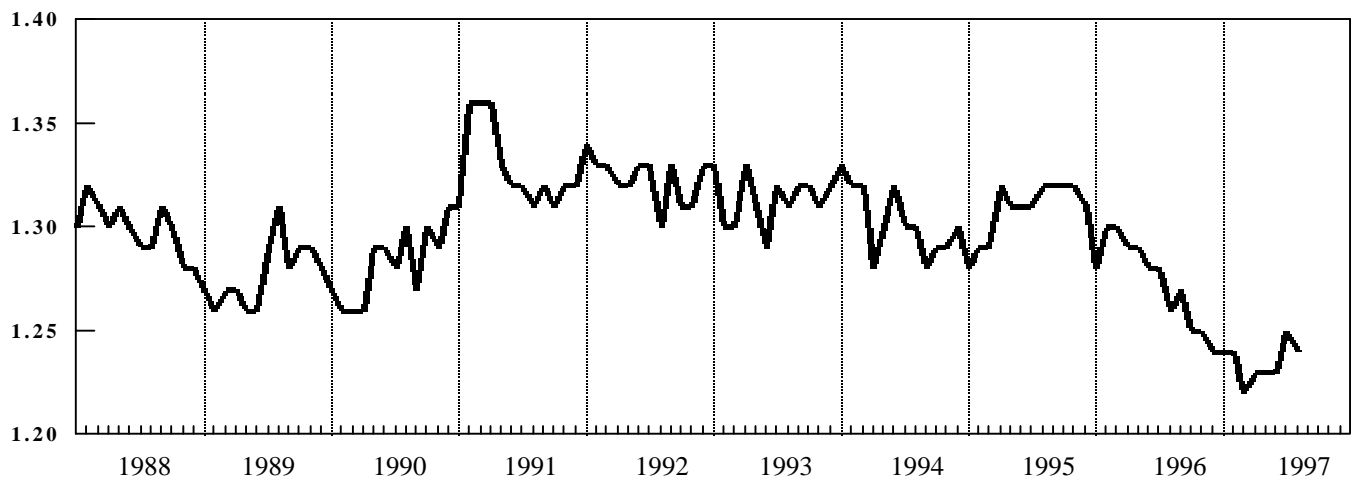
**Inventories.** Total inventories of merchant wholesalers, after adjustment for seasonal variation but not for price changes, were \$262.5 billion at the end of July, down 0.6 percent (+/-0.4%) from the revised June level but were 2.5 percent (+/-2.2%) above July 1996. The June preliminary estimate

was revised upward by \$0.2 billion or 0.1 percent. End-of-month inventories of durable goods wholesalers decreased 1.1 percent (+/-0.4%) from last month but were 3.9 percent (+/-3.4%) above July 1996. Compared to last month, inventories of motor vehicles and automotive equipment declined 2.2 percent, while lumber and other construction materials increased 1.6 percent. Among nondurable goods, inventories of beer, wine, and distilled alcoholic beverages fell 4.2 percent from June, while paper and paper products rose 1.4 percent from last month.

**Inventories/Sales Ratio.** The July inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.24. The July 1996 ratio was 1.26.

*Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling variability. A discussion of the reliability of the data and general survey methodology appears in BW/96-RV Current Business Report.*

**Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1988 to 1997**  
(Data adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for August is scheduled to be released October 8, 1997 at 10:00 a.m.

**Address inquiries concerning this report to Services Division, Bureau of the Census, Washington, DC 20233, or call Ronald Piencykoski, (301) 457-2779 or 457-2764.** For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

This report is available on day of issue through the Department of Commerce's online Economic Bulletin Board (202-482-1986). The data are also available on the internet - <http://www.census.gov/svds/www/mwts.html>.

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers: 1997 and 1996

[In millions of dollars]

SIC <sup>1</sup> code	Kind of business	Sales						Inventories						Inventories/Sales		
		Monthly			Percent change			Monthly			Percent change			ratios		
		Jul. 1997 (p)	Jun. 1997 (r)	Jul. 1996 (r)	Jul./ Jun.	Jun./ May	Jul. 97 Jul. 96	Jul. 1997 (p)	Jun. 1997 (r)	Jul. 1996 (r)	Jul./ Jun.	Jun./ May	Jul. 97 Jul. 96	Jul. 1997 (p)	Jun. 1997 (r)	Jul. 1996 (r)
Adjusted <sup>2</sup>																
	U.S. Total	211,884	210,772	203,814	0.5	0.4	4.0	262,457	264,154	256,053	-0.6	2.0	2.5	1.24	1.25	1.26
50	Durable	111,365	109,662	104,143	1.6	1.5	6.9	167,589	169,425	161,228	-1.1	2.3	3.9	1.50	1.54	1.55
501	Automotive	18,436	18,741	17,524	-1.6	3.0	5.2	27,653	28,267	27,511	-2.2	5.2	0.5	1.50	1.51	1.57
502	Furniture	3,527	3,481	3,697	1.3	0.7	-4.6	5,150	5,156	5,261	-0.1	-1.6	-2.1	1.46	1.48	1.42
503	Lumber	7,583	7,488	7,273	1.3	2.3	4.3	8,344	8,213	7,692	1.6	1.4	8.5	1.10	1.10	1.06
504	Prof. equip.	21,445	21,746	19,813	-1.4	3.4	8.2	23,267	23,411	21,920	-0.6	2.5	6.1	1.08	1.08	1.11
505	Metals	9,100	8,899	8,052	2.3	4.2	13.0	13,713	13,712	12,264	0.0	0.7	11.8	1.51	1.54	1.52
506	Electrical	15,321	14,985	14,591	2.2	0.4	5.0	23,984	24,118	23,325	-0.6	1.6	2.8	1.57	1.61	1.60
507	Hardware	6,439	6,356	5,866	1.3	-0.4	9.8	12,256	12,478	11,713	-1.8	0.8	4.6	1.90	1.96	2.00
508	Machinery	16,798	16,283	15,164	3.2	2.0	10.8	37,627	38,428	35,736	-2.1	2.2	5.3	2.24	2.36	2.36
509	Other Durable	12,716	11,683	12,163	8.8	-4.6	4.5	15,595	15,642	15,806	-0.3	3.2	-1.3	1.23	1.34	1.30
51	Nondurable	100,519	101,110	99,671	-0.6	-0.8	0.9	94,868	94,729	94,825	0.1	1.3	0.0	0.94	0.94	0.95
511	Paper	6,974	7,106	6,869	-1.9	0.1	1.5	8,956	8,829	8,416	1.4	-1.0	6.4	1.28	1.24	1.23
512	Drugs	10,229	9,938	8,472	2.9	0.4	20.7	14,671	14,553	12,823	0.8	3.4	14.4	1.43	1.46	1.51
513	Apparel	7,435	7,069	6,588	5.2	-3.2	12.9	12,582	12,588	11,760	0.0	1.3	7.0	1.69	1.78	1.79
514	Groceries	27,692	27,911	27,064	-0.8	0.9	2.3	17,315	17,440	18,015	-0.7	-0.3	-3.9	0.63	0.62	0.67
515	Farm-products	9,137	9,349	11,560	-2.3	-2.8	-21.0	9,779	9,471	11,260	3.3	5.1	-13.2	1.07	1.01	0.97
516	Chemicals	4,821	4,693	4,529	2.7	3.6	6.4	4,875	4,858	4,470	0.3	5.5	9.1	1.01	1.04	0.99
517	Petroleum	14,706	15,018	14,349	-2.1	1.5	2.5	4,987	5,036	4,927	-1.0	-3.4	1.2	0.34	0.34	0.34
518	Alcohol	4,827	4,697	4,692	2.8	-1.9	2.9	4,816	5,028	5,069	-4.2	7.0	-5.0	1.00	1.07	1.08
519	Other Nondur.	14,698	15,329	15,548	-4.1	-5.1	-5.5	16,887	16,926	18,085	-0.2	-0.7	-6.6	1.15	1.10	1.16
Not Adjusted														Sales to date		
	U.S. Total	213,353	212,358	205,016	0.5	-0.3	4.1	262,290	260,870	255,298	0.5	1.2	2.7	1,455,358	1,383,752	
50	Durable	111,593	111,494	104,395	0.1	3.0	6.9	169,893	169,426	163,449	0.3	1.7	3.9	746,220	710,545	
501	Automotive	18,952	19,041	17,927	-0.5	0.8	5.7	27,708	27,871	27,511	-0.6	2.1	0.7	128,052	123,601	
502	Furniture	3,527	3,436	3,649	2.6	-1.6	-3.3	5,268	5,239	5,366	0.6	-0.7	-1.8	24,290	24,493	
503	Lumber	8,159	7,960	7,840	2.5	3.0	4.1	8,352	8,394	7,700	-0.5	1.5	8.5	51,310	48,344	
504	Prof. equip.	21,080	22,094	19,516	-4.6	9.3	8.0	23,593	23,153	22,249	1.9	2.7	6.0	143,254	129,420	
505	Metals	8,991	9,095	7,947	-1.1	3.3	13.1	13,864	13,808	12,399	0.4	1.4	11.8	61,492	57,654	
506	Electrical	15,367	14,940	14,576	2.9	3.3	5.4	24,608	24,432	23,955	0.7	3.1	2.7	100,850	99,687	
507	Hardware	6,948	6,744	6,283	3.0	6.1	10.6	12,231	12,466	11,690	-1.9	-1.2	4.6	43,071	39,481	
508	Machinery	16,680	16,641	15,285	0.2	0.8	9.1	38,003	38,390	36,093	-1.0	0.8	5.3	112,313	109,666	
509	Other Durable	11,889	11,543	11,372	3.0	-2.1	4.5	16,266	15,673	16,486	3.8	2.9	-1.3	81,588	78,199	
51	Nondurable	101,760	100,864	100,621	0.9	-3.6	1.1	92,397	91,444	91,849	1.0	0.2	0.6	709,138	673,207	
511	Paper	7,141	6,978	6,993	2.3	1.5	2.1	9,010	8,670	8,458	3.9	-1.7	6.5	50,368	47,208	
512	Drugs	10,229	9,580	8,514	6.8	0.0	20.1	14,554	14,073	12,708	3.4	5.6	14.5	66,992	57,896	
513	Apparel	8,104	6,850	6,970	18.3	11.2	16.3	12,997	12,815	12,136	1.4	6.3	7.1	50,218	41,719	
514	Groceries	28,274	27,660	27,659	2.2	-3.8	2.2	17,280	17,266	17,943	0.1	0.2	-3.7	191,196	182,007	
515	Farm-products	8,561	8,676	10,797	-1.3	-10.8	-20.7	7,530	7,406	8,659	1.7	-6.2	-13.0	67,032	75,351	
516	Chemicals	4,893	4,899	4,574	-0.1	0.9	7.0	4,812	4,907	4,416	-1.9	5.7	9.0	32,791	31,315	
517	Petroleum	14,515	14,522	14,406	0.0	-4.2	0.8	4,977	4,860	4,927	2.4	-7.3	1.0	107,046	98,879	
518	Alcohol	5,213	5,021	4,973	3.8	-3.0	4.8	4,941	4,978	5,186	-0.7	7.8	-4.7	32,008	31,945	
519	Other Nondur.	14,830	16,678	15,735	-11.1	-9.3	-5.8	16,296	16,469	17,416	-1.1	-5.5	-6.4	111,487	106,887	

p Preliminary estimate. r Revised.

1 For a full description of the SIC Codes shown above see the "1987 Standard Industrial Classification Manual" or the Current Business Reports

\*Combined Annual and Revised Monthly Wholesale Trade" publication.

2 Data adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for seasonal adjustment factors used.

**Table 2. Coefficients of Variation and Standard Error for Sales and Inventories**

SIC code	Kind of business	Coefficients of variation for level (x 100)				Standard error for trend				Coefficients of variation for level (x 100)		Standard error for trend
		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year to Year Estimates		Cumulative sales estimates		Current year cumulative to previous
		Sales	Inv	Sales	Inv	Sales	Inv	Sales	Inv	C Y	P Y	year cumulative
		Median	Median	Median	Median	Median	Median	Median	Median			
	<b>U.S. Total</b>	1.1	1.4	1.1	1.4	0.4	0.3	0.9	1.6	1.0	0.8	0.7
<b>50</b>	<b>Durable</b>	2.0	2.2	2.1	2.3	0.7	0.3	1.7	2.3	2.0	1.2	1.5
501	Automotive	4.0	4.0	3.9	3.9	1.3	1.0	3.7	3.9	3.5	2.8	2.8
502	Furniture	5.4	7.0	5.4	7.0	2.6	1.0	4.3	10.9	5.0	4.1	3.7
503	Lumber	5.0	5.2	5.1	5.2	1.4	1.0	5.6	5.5	5.1	2.1	5.4
504	Prof. equip.	5.5	7.0	5.8	7.2	1.5	0.9	5.1	5.1	5.4	3.2	4.4
505	Metals	4.5	9.1	4.6	8.5	1.2	0.8	2.9	10.2	4.4	3.6	2.3
506	Electrical	4.7	4.3	4.6	4.2	1.2	0.5	3.3	3.0	4.5	2.9	3.2
507	Hardware	4.8	4.2	4.9	4.1	1.6	0.5	6.4	4.5	4.4	2.5	5.6
508	Machinery	5.4	4.5	5.6	4.5	1.7	0.6	4.8	5.1	5.7	2.4	5.0
509	Other Durable	4.5	6.5	4.3	6.4	1.6	0.9	2.9	6.0	4.2	3.5	2.2
<b>51</b>	<b>Nondurable</b>	1.8	1.9	1.8	1.8	0.6	0.4	1.3	1.2	1.7	1.3	1.2
511	Paper	3.3	3.7	3.4	3.9	1.0	0.4	2.9	4.0	3.2	3.7	2.6
512	Drugs	5.5	5.1	5.5	5.1	0.5	0.4	3.2	2.2	5.6	5.0	3.3
513	Apparel	4.7	7.5	4.9	7.8	2.4	0.8	4.9	5.4	4.3	2.8	3.5
514	Groceries	3.1	4.7	3.1	4.7	0.8	0.7	2.1	5.0	2.9	2.7	1.8
515	Farm-products	5.1	6.6	5.0	6.7	2.1	1.4	3.1	3.6	4.6	3.7	2.1
516	Chemicals	5.4	5.7	5.4	5.5	1.4	0.5	4.5	4.3	5.5	2.8	4.0
517	Petroleum	5.6	14.0	5.2	14.0	1.0	1.0	3.5	14.2	5.6	4.3	3.5
518	Alcohol	6.4	5.8	6.4	6.1	1.7	1.2	8.3	6.0	6.4	5.1	8.3
519	Other Nondur.	5.8	5.7	5.9	5.7	2.1	1.3	6.6	5.4	5.4	1.9	6.1

Note: The median measures of variability are based on the most recent 8 months of data.

### Sample Design and Reliability of Data

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the trend estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is  $\pm 1.65 \times 0.9\%$  or  $\pm 1.5\%$ , and the 90% confidence interval is -0.3% to +2.7%. If the interval contains 0, it cannot be stated with certainty whether there was an increase or decrease. For monthly level, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value  $\pm 1.65 \times CV \times$  (the estimated value).

Nonsampling errors are usually attributed to many possible sources: (1) coverage error - failure to accurately represent all population units in the sample, (2) inability to obtain information

about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of collection or processing, or in imputing for missing or inconsistent data. Coverage error has an effect on the accuracy of estimates for this survey to the extent that the administrative records system, which forms the basis of our survey universe frame, does not contain all legal businesses. A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For all kinds of businesses combined, imputed data amount to about 26 percent of the total monthly wholesale sales estimates and 28 percent of the total monthly wholesale inventories estimates.

Nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

Official Business

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**Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers**

SIC code	Kind of business	Sales					Inventories						
		1997					1996	1997					1996
		Aug.	Jul.	Jun.r	May	Apr.	Jul.r	Aug.	Jul.	Jun.r	May	Apr.	Jul.r
	<b>U.S. Total<sup>1</sup></b>	<b>1.004</b>	<b>1.008</b>	<b>1.007</b>	<b>1.016</b>	<b>1.007</b>	<b>1.010</b>	<b>0.980</b>	<b>0.998</b>	<b>0.985</b>	<b>0.996</b>	<b>1.009</b>	<b>0.997</b>
<b>50</b>	<b>Durable</b>	<b>1.014</b>	<b>1.008</b>	<b>1.016</b>	<b>1.000</b>	<b>1.002</b>	<b>1.008</b>	<b>1.001</b>	<b>1.014</b>	<b>0.998</b>	<b>1.007</b>	<b>1.009</b>	<b>1.013</b>
501	Automotive	0.981	1.028	1.016	1.039	1.049	1.023	0.966	1.002	0.986	1.016	1.020	1.000
502	Furniture	1.023	1.000	0.987	1.010	1.007	0.987	1.031	1.023	1.016	1.007	0.981	1.020
503	Lumber	1.097	1.076	1.063	1.056	1.026	1.078	0.987	1.001	1.022	1.021	1.026	1.001
504	Prof. equip.	1.007	0.983	1.016	0.961	0.956	0.985	0.998	1.014	0.989	0.987	1.006	1.015
505	Metals	1.002	0.988	1.022	1.031	1.054	0.987	0.999	1.011	1.007	1.000	1.007	1.011
506	Electrical	1.014	1.003	0.997	0.969	0.963	0.999	1.028	1.026	1.013	0.999	0.994	1.027
507	Hardware	1.040	1.079	1.061	0.996	0.989	1.071	1.007	0.998	0.999	1.019	1.010	0.998
508	Machinery	0.984	0.993	1.022	1.035	1.040	1.008	1.003	1.010	0.999	1.013	1.017	1.010
509	Other Durable	1.051	0.935	0.988	0.962	0.937	0.935	1.026	1.043	1.002	1.004	0.991	1.043
<b>51</b>	<b>Nondurable</b>	<b>0.997</b>	<b>1.010</b>	<b>0.998</b>	<b>1.029</b>	<b>1.013</b>	<b>1.009</b>	<b>0.942</b>	<b>0.969</b>	<b>0.964</b>	<b>0.974</b>	<b>1.012</b>	<b>0.968</b>
511	Paper	1.026	1.024	0.982	0.969	0.992	1.018	0.962	1.006	0.982	0.989	1.017	1.005
512	Drugs	0.945	1.000	0.964	0.967	1.019	1.005	0.963	0.992	0.967	0.947	1.000	0.991
513	Apparel	1.111	1.090	0.969	0.844	0.945	1.058	1.025	1.033	1.018	0.971	0.963	1.032
514	Groceries	0.997	1.021	0.991	1.040	0.985	1.022	0.963	0.998	0.990	0.985	0.985	0.996
515	Farm-products	0.933	0.937	0.928	1.003	1.001	0.934	0.702	0.770	0.782	0.876	1.023	0.769
516	Chemicals	1.002	1.015	1.044	1.063	1.050	1.010	1.010	0.987	1.010	1.008	1.014	0.988
517	Petroleum	1.006	0.987	0.967	1.025	1.006	1.004	1.033	0.998	0.965	1.006	0.976	1.000
518	Alcohol	1.024	1.080	1.069	1.081	0.997	1.060	0.987	1.026	0.990	0.982	1.004	1.023
519	Other Nondur.	0.985	1.009	1.088	1.138	1.101	1.012	0.921	0.965	0.973	1.022	1.072	0.963



r Revised

<sup>1</sup> Adjusted sales and inventories data shown in table 1 are obtained by dividing the unadjusted data by the adjustment factors shown above for the corresponding group. Adjusted data for the totals are obtained by adding the durable and nondurable goods. Seasonal factors shown for the totals will provide an approximation of the adjusted estimates, but may show small differences from the published data.

Note: The seasonal factors shown have been computed based on monthly estimates through the current month preliminary estimates.